

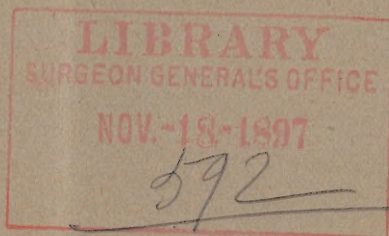
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Forty-One Consecutive Peritoneal Operations,
with One Death;
including Twelve Hysterectomies.

BY

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FORTY-ONE CONSECUTIVE PERITONEAL OPERATIONS, WITH ONE DEATH; INCLUDING TWELVE HYSTERECTOMIES.*

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The problems that present themselves for successful work in abdominal surgery in a general hospital differ somewhat from those to be met in special institutions. The purposes of this paper are to illustrate some of the methods that have been found satisfactory under such conditions, as well as to report some results in recent work at the Methodist Hospital. It is not always feasible in the general hospital to secure the approval of the management for a policy of complete separation of abdominal work from every other department of the institution, both as to separate rooms, utensils, clothing, separate instruments and operating room, and permanent separation of a corps of nurses. These measures it has been possible to secure in very large degree through the enlightened co-operation of the Board of Management at the Methodist Hospital in this city, and to this as much as to any other one factor may be attributed such measure of successful outcome as has been recently obtained.

The corps of nurses specially detailed is required to serve in the abdominal department exclusively for a period of months. They are during that term not to be called off as substitutes into other departments, and are under no circumstances to come in contact with septic cases when off duty for an afternoon. A resident physician on duty is not to have charge of doubtful surgical or medical cases at the same time, my own idea being to exclude such a resident from the rooms of convalescent

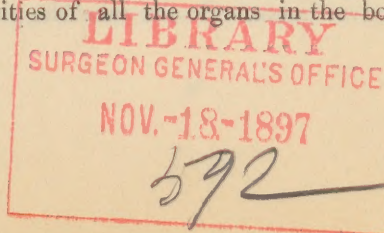
patients, and depend upon the nurse and myself for attendance entirely. In no other way can a resident be prevented, especially when substituting for a colleague off for an afternoon, from coming in contact with the various infective cases that almost always are present in some department of a hospital, such as acute throat-cases not yet diagnosed, erysipelas in medical wards, or cases in the surgical wards with sloughing burns and the like, cases that must from time to time be found in any surgical ward and that the residents are obliged to dress. I would repeat, it is far better for an abdominal patient not to see a resident physician at all than to see one who cannot protect himself from such exposures.

At the Methodist Hospital three large rooms are set apart for the gynecological department. To these a patient is taken before her operation and after a bath. She is prepared for section by the special nurses, taken to the operating room in a separate building, returned to the gynecological recovery-rooms after operation, after which she may return to the ward. It is felt that if the patient is specially isolated and nursed for one week, she may return to the ward with entire safety. She sits up at the end of three weeks and leaves the house in four.

Much attention is given to the preparation of the patient's bowels, skin and kidneys. The kidneys especially are often found to be doing too little work when the case is admitted to the hospital, so that the four or five days are never lost that are devoted to re-establishing the activities of all the organs in the body.

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During the preparation bismuth salicylate is frequently administered, gr. iv, four times daily, in addition to salines as intestinal detergents and to inhibit the activity of bacterial or fermentative processes.

For cleansing of skin and hands, after prolonged use of soap and brush, potassium permanganate and oxalic acid are relied upon. These have proved clinically so entirely satisfactory that there is no temptation to experiment with other methods. Gauze pads exclusively are used for sponging. In closing wounds the system of buried sutures for muscle and aponeurosis is adhered to, special attention being given to union of aponeurosis. The intracutaneous suture is used for the skin. In cases in which no pus has been encountered, nothing but baked gauze and cotton is used as a dressing, no powder whatever. Acetanilid is used as a dusting-powder when pus has been found during the operation. Rubber adhesive strips have for several years in my work held the dressing in place better than many-tailed binders. At the first dressing they are cut down in front and pinned up again with safety-pins.

The first dressing is *always* on the fourth day. The object is to inspect the wound and to remove the dressing, which in a small proportion of cases becomes stained with serum. The intracutaneous stitch comes out on the eighth day. The bowels are moved in forty-eight hours, the routine being a tablet of calomel $\frac{1}{2}$ gr., sodium bicarbonate 1 gr., ipecac $\frac{1}{10}$ gr., half-hourly till ten are taken; then an enema of Epsom salt one ounce, glycerin one ounce, turpentine one dram, water one pint; then Rochelle salt, $\mathfrak{zj}$ hourly until a bowel movement occurs. The routine is stopped at any time when a free movement is secured. It is very rarely necessary to add anything if the foregoing order is followed. In regard to diet, nothing is given by the mouth for twenty-four hours; then gruel and liquid peptonoids (diluted one-half) in alternation every two hours. One ounce is given at a time during the second day. Another ounce of gruel is added daily until six ounces are taken every two hours. Broths take the place

of peptonoids after a day or two, in quantities the same as those of gruel.

I consider the use of the beef-tea enema a distinct advance in the conduct of a case of celiotomy. It relieves the distressing thirst of the first twenty-four hours and has a sustaining power much needed after the catharsis preceding operation, the scanty liquid meal on the morning of the operation, the ether and the loss of blood. This enema is used more and more as a routine measure, beginning as soon as the patient complains of thirst, or if reaction is slow. It has never done any harm, by causing bleeding or otherwise disturbing the field of operation.

A series of consecutive cases is presented that involve a wide range in peritoneal surgery. The series numbers forty-one, with one death.*

There are various ways of arranging a series of cases. For example, all the cases of one disease or all the operations of one kind might be put in a group; but it is not without interest to illustrate the ways in which the chance comers of a general hospital service must be dealt with; hence the presentation of a consecutive varied series.

CASE I.—*Hysterectomy in an Uncured Case of Celiotomy.*

In October, 1893, after exhausting minor measures in my hands and those of her physician, Dr. M. K. Elmer, of Bridgeton, N. J., I removed a tubal sac, filled with greenish-black fluid, and the corresponding ovary, bound down by old adhesions in the cul de sac behind the uterus.† The right tube was normal and was allowed to remain, with its ovary, a cyst in which was punctured. The patient was sterile, though married ten years, and it was thought she might become pregnant. This, however, did not occur. She gained in weight, and for a year or two was greatly relieved of old pelvic symptoms; but gradually she grew worse again, especially at the site of an old inguinal hernia, the internal ring of which was very large, and into which the right ovary seemed to fall when she was on her feet. Various

* Three other cases have been operated upon since, all successfully, so that the series is not yet ended.

† See *Medical News*, Sept., 1894.

trusses were tried, with partial relief. Near a menstrual period the truss could not be worn on account of tenderness. The hernia had years ago been operated upon, leaving a distensible funnel-shaped pouch, with little depth as seen from within. Finally, and as a last resort, hysterectomy was done three years after the first operation, with supravaginal ligation. This has resulted in the cure of the patient, who is very grateful and has sent me since two cases for section.

CASE II.—*Fibroma of the Uterus*.*

E. D., a patient of Dr. Kisner, of Lycoming Co., was a well-nourished woman, aged 39, having had five children and two miscarriages. She suffered from mild sepsis after the birth of her last child, seven years before, followed by soreness on the left side. A tumor was noticed on the left side, low down, two years before, since which it had rapidly grown. The abdomen was found distended by a somewhat irregular, bosselated mass, larger than a gravid uterus at term, very hard high up and to the left, softer in front to the right, but nowhere fluctuating. Through the vagina the pelvis was found to be completely choked by a hard, immovable, rounded tumor-mass, completely burying the uterus and projecting down below the cervix on all sides. By the greatest effort the os could barely be touched, far back, behind a portion of the tumor that crowded the anterior vaginal wall downward, and evidently grew from the front of the uterus. The veins of the vagina and vestibule were varicose from pressure above. It was this peculiar disposition of the growth, which seemed as though poured into the pelvis and abdomen as into a mold, which caused the enormous difficulties in removal, and consequently cost the patient her life. On opening the abdomen the tumor was found to have dissected up the peritoneum from the anterior wall of the abdomen, the peritoneum passing over upon the tumor at the umbilicus. It had also dissected up and destroyed the identity of both broad ligaments, and was attached at the root of the mesentery, the

peritoneum from which also it had dissected up.

Such a completely sessile fibroma it has never been my fortune to see, the mass overhanging after completely filling the true and false pelvis on both sides and in front in such a way as to make the uterine arteries totally inaccessible for ligation, even after all the preliminary ligation and cutting had been done that was possible. Only a small portion of the right broad ligament was recognizable. After precious time had been lost in attempts to reach the blood-supply by ligature, the constricting wire of the Koeberlé nœud was applied, and the mass, weighing $13\frac{1}{2}$ lbs., removed. The base of the growth was at first too large to be girdled by the wire, but this being held by forceps while the pedicle was being trimmed, the ends finally met and a small stump was obtained, badly dragged down. It was a source of regret afterward that in this case the nœud was not used earlier in the operation as a time-saving measure, though from the very peculiar dissection of the mesentery and parietal peritoneum, the future of the stump would have been doubtful. The patient reacted from the ether, but died at 9.30 the same evening from shock. There was no secondary hemorrhage. So ended the most formidable case in abdominal surgery that it has been my fortune to undertake.

It is my firm belief that the best method of hysterectomy for fibroids consists in ligation from above, dropping the stump. That method is attended with an exceedingly low mortality, and there can be no doubt that it represents the method adopted by nearly all the best operators of the present day. It is the method of choice in almost every case; but there are a very few cases, such as that just reported, in which the nœud could be used to advantage instead of ligation.

CASE III.—*Closure of Ventral Hernia during Pregnancy*.

B., aged 28, who had had three births and two miscarriages, applied for relief from attacks of severe intestinal pain due to an enormous hernia which had followed celiotomy in the hands

*This is the only fatal case of the series (No. 10).

of a well-known operator. According to her history she had had a tumor of the ovary removed, had remained seven weeks in the hospital and had discovered a hernia of the wound soon after leaving the hospital, and also that she was pregnant. She was delivered at term, but the pregnancy following so soon upon the section had resulted in extensive separation of the recti muscles. Nearly two years later, when she came into my hands, she was again pregnant four months. She was suffering great pain in the hernia, and as the opening extended quite to the pubic bone, a part of the uterus, bladder and much small intestine fell forward into the great sac. She could only urinate at times by raising up the hernia, and of course with it the bladder. Standing up brought on attacks of pain and vomiting from incarceration of the bowel. Various attempts were made by belts, strapping, etc., to relieve the woman's condition, but as she was very fat (she was short in stature and weighed 186 lbs.), they were useless. It was impossible for her to remain in bed until term, owing to poverty. No institution would keep her. The sac of the hernia was therefore dissected out. The sheaths of the recti were laid open, and buried wiringut sutures carefully used to unite muscle and aponeurosis. Beyond a few uterine pains in the first few days, there was no complication; the pregnancy was not interrupted, and she was delivered at term in the Preston Retreat, without a recurrence of the hernia. Probably no other method than buried permanent sutures would have withstood this test.

CASE IV.—*Pelvic Abscess following Pyosalpinx.*

C., aged 24, applied for recurrent attacks of pelvic peritonitis on the right side. A tender mass was felt to the right of the uterus. On section a pus-sac was found at the site of an old pyosalpinx. The abdominal cavity was flushed and drained with gauze and a tube. Recovery ensued.

CASE V.—*Recurrent Umbilical Hernia.*

C., aged 39, very fat, weighing 230 lbs., had suffered for five years from irreducible umbilical hernia, upon which I had operated two years before. She remained

well for eighteen months, when the hernia recurred. As the patient had had several attacks of intestinal obstruction and was unable to work on account of the hernia, its closure was again undertaken. Silk-worm-gut stitches buried for two years were found still strong. They had not caused irritation. The fascia was split. Recovery was uncomplicated. A permanent result was not hoped for on account of the obesity of the patient. Later she reported that the hernia had recurred again, that she went to a homeopathic hospital where she was again operated on, the wound sloughing extensively, with burrowing into the fat, leaving a persistent sinus from which there is occasional fecal discharge. She reapplied to me for closure of this sinus, but operation was declined.

The problem presented by an umbilical hernia in a fat woman, when no pad can be kept in place and when attacks of obstruction frequently occur, is a very difficult one. During the years the patient was under observation attempts were made by phytolacca and other remedies to reduce the obesity, but with no practical result, owing to the patient's habits of eating being uncontrollable. The fitting of a retaining appliance was pronounced hopeless by our best instrument-maker. As the result of my two operations she had less than three years of health. Only one of these operations appears in this series.

CASE VI.—*Adherent Retroversion. Hematoma of the Ovary.*

D., 46 years old, unmarried, had for seven years suffered from severe dysmenorrhea and constant pain in the back and head. Pelvic distress followed exertion. She stated that her symptoms began after a heavy lift. The menses were excessive. The uterus was adherent below the sacral promontory. The left ovary was found on section to contain a hematoma. The ovary was removed and the uterus suspended. Recovery followed, and the improvement has been permanent.

CASE VII.—*Retroversion and Descent of Uterus. Ulcerative Cystitis.*

This patient, from Clearfield county, Pa., presented a complicated and formidable condition, requiring long and varied treat-

ment, but a complete cure justified the course pursued. She was 38 years old, and in one of her five labors the function of the levator ani had been destroyed, probably fourteen years before coming under observation. As a result of lack of proper support, the uterus had gradually descended, along with the bladder, causing the formation of a pocket that held residual urine. This had gradually led to the development of ulcerative cystitis at the base of the bladder, with attacks of agonizing bladder-pain. The woman was frequently up twenty-five times at night to pass water. Five years before there had been a discharge of three or four ounces of pus with the urine, and subsequently the urine had always contained pus. Examination showed a slightly enlarged, flaccid uterus, with a wide range of movement, from relaxed attachments; the fundus rested below the sacral promontory. The ovaries were normal, the left adherent in the cul de sac. There was general thickening of the right broad ligament; and much cystocele and rectocele.

The cystoscope showed upon the trigone and the posterior lower wall of the bladder prominent, easily bleeding granulations covered with flocculent pus and having many adherent calcareous granules. No tumor or stone could be found, and the remainder of the bladder-wall was fairly normal. Nothing but drainage of the bladder would cure such a condition. It was decided to make an artificial vesico-vaginal fistula, draining the bladder for some months; then when the cystitis was cured to close this opening and prevent future pocketing of urine by repair of the perineum and suspension of the uterus. Several procedures were carried out. A button-hole opening was made in the bladder in front of the cervix, the bladder and vaginal mucous membrane being stitched together to prevent closure. The bladder was then daily irrigated with a boric-acid solution. Rapid improvement, as demonstrated by the cystoscope, continued. Four and a half weeks later the uterus was suspended from the anterior abdominal wall, and the urine began to dribble constantly from the artificial fis-

tula, while before urine could be retained an hour or two at night if the patient lay on her back, the descended uterus carrying down and pocketing the bladder. Eight weeks after the fistula was established the bladder was normal in appearance and the patient entirely free from the pain that she had suffered for fourteen years. The fistula was now closed by seven silk sutures. Perfect union resulted, and the patient was sent home to test the permanency of the cure before the perineum should be closed and further drainage-operations thereby rendered difficult. Ten months later the perineum was repaired and the patient has remained fully restored to health, having gained greatly in weight and suffering no pain.

CASE VIII.—*Adherent Retroversion. Cystic Ovary.*

F., twenty-eight years old, previously reported as a case of bifid uterus,* had been sterile, though married five years. She was a great sufferer. The left ovary was removed, and the uterus curetted and suspended by attachment in front. Great improvement in the general symptoms followed. The woman became pregnant in the left horn of her uterus, but aborted at six months.

CASE IX.—*Retroversion with Descent. Laceration of Cervix and Perineum. Adenoma of Endometrium. Neurasthenia.*

G., aged thirty-two, the wife of a clergyman near Harrisburg, had three births, and the menses were very profuse. She suffered great distress in the pelvis when on her feet, but was comfortable when lying down. A pessary had given some relief. Hysteria was very marked. Neurasthenia had existed for eight years, and the patient led an invalid life. She had elsewhere had a superficial repair of the perineum made, which gave no relief. The uterus was subinvolved, movable, and descended to the first degree, the fundus being below the sacral promontory. The ovaries were large, extremely tender, the right the worse. The cervix was torn, and there was a severe internal laceration of the pelvic floor, with endometritis. After a

* *American Journal of Obstetrics*, Vol. XXXVI, No. 2.

week of preparation, the uterus was curetted and packed, the diseased right ovary removed with its tube, and the uterus suspended. Recovery ensued without event, except for tonsillitis on the twenty-third day. Owing to the patient's weak condition, the perineum was repaired, with the cervix, at a subsequent sitting. General massage and medication afterward were employed to combat the neurasthenic state. The late results of the treatment have been that the uterus has regained its normal size, and remains forward in good position, the endometritis and the menorrhagia are cured, the patient walks with entire comfort, and the neurasthenic condition is greatly improved.

CASE X.—Chronic Appendicitis. Cystic Ovary. Retroversion.

Miss X., aged thirty-three, was referred from the Bermuda Islands by a former patient. She dates her disorders from a fall ten years ago. The menses recurred every three weeks, lasted a week, were excessive and preceded by pain. She had always had pelvic distress and pain in the back and on the left side, increased by walking or by a jar. She had had a number of attacks of pelvic inflammation, probably mild appendicitis. She was hysterical and moody, and took morbid dislikes to her family. She refused to speak to any one for days, and she had delusions of dislike by others. The patient was under weight, anemic and constipated.

Examination showed the uterus badly retroverted, the left ovary prolapsed and enlarged to the size of an egg. The region of the appendix was very tender.

At the operation the left cystic ovary was removed and small cysts in the right ovary were punctured, but the organ was not removed. The appendix showed old inflammatory thickening toward its outer end. It was removed, and the stump invaginated in the cecum. The uterus was suspended from the anterior abdominal wall. Recovery was excellent. The highest pulse rate after the operation was 74. The patient was seen several months later, and then had no distress in taking exercise. She had gained about twenty pounds in weight, and was far

more happy and cheerful than before. Her mental condition had greatly improved. The patient was willing and able to do light duties at home, which marked a great change. The hygienic treatment was to be continued.

CASE XI.—Ovarian Abscess.

This case is of much interest because an attempt was made to treat the patient without drainage. By the fourth day she was septic. Re-opening, flushing and draining saved her.

The patient was sent by Dr. Hamilton Mailly, of Bridgeton, N. J. She was twenty-three years old, married, and had one child. Her trouble dated from a septic miscarriage three years ago, when she was in bed six weeks with chills, etc., under the care of another physician. The right side of the abdomen had always been very sore, being hurt by jarring, etc. The patient had had several attacks of local peritonitis, the last a week before. The left tube and ovary were normal. One child was born eighteen months ago, since the trouble began on the right side. The confinement was followed by some fever. Well-marked inflammatory disease being diagnosed, the abdomen was opened. The right tube was the size of a large thumb, and evidently contained pus. The ovary was the size of a hen's egg, very firmly imbedded in old organized adhesions and riddled with pockets containing varied colors of pus. Some of these were ruptured during the difficult enucleation, but it was hoped that the pus might be sterile. This proved to be an error, as developments showed. The diseased tube and ovary being tied off and the other tube and ovary allowed to remain after freeing adhesions, the abdomen was closed without drainage—the second error. Within the next four days septic peritonitis developed, presenting some very instructive features.

In the first place there was no marked tympanites, and the bowels moved freely; there were twenty-five bowel-movements in those four days. This shows that we may have peritonitis with open bowels and a flat abdomen, and *without any vomiting*. The temperature, however, had gradually mounted to 104.6°.

The pulse gradually became quicker and more accelerated, ranging between 110 and 115. The tongue was dry, pointed and brownish; great restlessness and sleeplessness were succeeded by drowsiness. There was occasional complaint of pain in the right side, the cheeks were flushed, the facies poor. The condition of this patient was such that in two days more death would undoubtedly have followed. She was lifted from the bed to a table, and the wound rapidly reopened under slight ether-anesthesia. The whole peritoneum showed capillary distention, but no flocculi. The coils of ileum in the right half of the abdomen, surrounding the site of operation, were stiff and angular and slightly adherent. There was no fluid in the abdomen. Several gallons of hot water were poured through the irrigating nozzle, all portions of the abdominal cavity being thoroughly flushed. Iodoform-gauze was introduced in three directions, and a glass tube fixed in place. The woman recovered nicely, the drainage-tube being taken out on the fifth day. She was discharged with a small sinus, no doubt leading down to a ligature. Some months later she wrote that she was so well as to surprise herself.

CASE XII.—H., aged 22, suffered from metrorrhagia and endometritis, with retroversion and cystoma of the right ovary. She was curetted, the diseased ovary removed, the uterus suspended, the sound tube and ovary being allowed to remain. Aseptic recovery followed.

CASE XIII.—P., aged 31, presented retroversion and descent of the uterus, with prolapse of a large ovary and constant pain in the region of the appendix. She suffered also from endometritis and a cystocele. At one sitting the following operations were performed: The redundancy of the anterior vaginal wall was corrected by a Stoltz purse-string operation and the uterus was curetted. The abdomen was opened in the median line, and the appendix, which was bound down by a firm band of connective tissue, was released and removed. The small cysts in the left ovary were punctured, both ovaries and tubes being allowed to remain. The uterus was suspended.

CASE XIV.—K., aged 25, had salpingo-oophoritis of the right side, lacerated perineum and an adhesive retroversion. She was a sufferer for many years. The uterus was curetted and packed with iodoform-gauze. Emmett's operation on the perineum was performed, the abdomen was opened, the adherent retroverted uterus freed and attached to the abdominal wall, and the diseased right tube and ovary removed at the same sitting. No drainage was used; aseptic recovery followed.

CASE XV.—M., aged 25, unmarried, gave a history of a large number of attacks resembling those of catarrhal appendicitis. The uterus was completely retroverted and descended. In the presence of her physician, Dr. W. W. Andrews, of Phillipsburg, the abdomen was opened and the retroversion was corrected by suspension. On examination, the appendix was found very long, dipping into the true pelvis, and presenting capillary engorgement throughout its entire length. This same capillary distention characterized the peritoneum of the entire right side of the abdomen. There was no sign of old inflammation. The drainage of the appendix seemed to be perfect, and after careful consideration and consultation the organ was not removed. This has ever since been a source of regret, as the attacks of right-sided colic have not been arrested. The patient made an aseptic recovery.

CASE XVI.—*Constriction of Appendix. Retroversion.*

H., aged 25, unmarried, presented adherent retroversion, disease of both tubes and ovaries, moderate in degree, and a very free vaginal discharge. Microscopic examination did not show the presence of the gonococcus; consequently, on account of the apparently simple nature of the inflammation of the tubes and ovaries, these were not removed, but they were carefully freed from adhesions, the ends of the tubes opened and the retroversion and prolapse corrected by uterine suspension. The appendix presented in its middle portion a constriction, or more properly a congenital atrophy to a tiny cord for a distance of about one-third of an inch; the distal portion beyond this constriction appeared

to be normal in structure. The organ was removed, owing to its abnormal character and the danger of future trouble, the stump being invaginated by suture into the cecum and the abdomen closed without drainage. Aseptic recovery followed.

CASE XVII.—*Cyst of the Broad Ligament.*

F., aged 30 years and married, was sent by Dr. J. Spencer Callen, of Shenandoah, with a history of pelvic peritonitis after an abortion six years before. She presented a cyst of the broad ligament on the right side, which had burrowed deeply into the tissues at the base of the broad ligament, and was covered by extremely firm and troublesome adhesions. The cyst was removed by ligating the broad ligament, both at the uterine end and along the pelvic wall, cutting away all the intervening tissue. Some difficulty was experienced in controlling hemorrhage by this method, and after a rather troublesome dissection, the sac-wall was removed and the abdomen closed without drainage. The patient made an aseptic recovery.

CASE XVIII.—*Pyosalpinx. Hydro-salpinx.*

J., aged 30 years, had old tertiary syphilis, involving the nasal bones, and had suffered for many years with aggravated pelvic symptoms. Owing to the refusal of her husband to have a clean sweep of the diseased organs made, as should have been done, operation was postponed for more than two years, during which time the patient was under more or less constant observation in the dispensary, and was treated by various minor measures. While constantly under treatment, reasonable comfort could be obtained most of the time, but she was subject to violent attacks of pelvic pain and to mild attacks of inflammation that confined her to bed from time to time. Finally, with the thought that the attitude of the husband, who was separated from her, was caused by a desire to interfere with the best interests of the patient, operation was undertaken, with the understanding that both tubes and ovaries should not be removed, although in the interests of good surgery this would probably have been required. On opera-

tion, the left tube was found to contain pus and was removed. The right tube had degenerated into a large hydrosalpinx, which was drained through an opening burned by the thermocautery, and the abdomen was closed, with glass drainage. The patient made a good recovery and has been much relieved of her old symptoms, which were chiefly referred to the the side on which the pyosalpinx existed.

CASE XIX.—*Diseased Appendix. Retroversion with adhesions.*

H., aged 34, had suffered for many years from various pelvic symptoms. She presented a retroversion, with inflamed, adherent left tube and ovary, and much tenderness in the region of the appendix. On opening the abdomen and separating the adhesions of tube and ovary, these organs were found to be sufficiently good to justify an attempt to save them. They were, therefore, not removed. The uterus was suspended, to overcome the retroversion and to prevent its falling again with the tube and ovary into Douglas' cul de sac, and the re-establishment of adhesions in this abnormal position. The appendix presented traces of old inflammatory attacks; it was stiff and hard, and, after separation from adhesions, could be held up like a pencil. It was removed, the stump invaginated, and the abdomen closed without drainage. Recovery followed without complication.

CASE XX.—*Cyst of the Broad Ligament.*

D., aged 36, unmarried, had been ill for four years following an attack of peritonitis. There was a mass in the anterior abdominal wall above Poupart's ligament, about the size of a walnut, apparently a fibroma, although somewhat tender. It was underneath the abdominal muscles and was not disturbed. A cyst occupied the left broad ligament, being very deeply situated. Over the top of it passed the round ligament. The base of the sac was tied off with difficulty, and the Paquelin cautery lightly used, owing to the uncertain character of the hemostasis. The wound was then closed without drainage, and normal recovery ensued.

CASE XXI.—*Salpingitis, Prolapsed Cystic Ovary. Endometritis, Retroversion.*

J., aged 20, married, had never been pregnant. The uterus was undeveloped, and much tenderness existed on the left side, which frequently incapacitated her for work. For four years she had had hysterical attacks. The left kidney was tender on pressure, but not enlarged. Catheterization of the ureter on that side betrayed nothing abnormal beyond diminished function. The left tube and ovary showed old inflammation; the uterus was retroverted. The patient was treated by local and general methods for a long time in the dispensary, and, not showing improvement, she was brought into the hospital and treatment personally continued for some weeks, without marked benefit. The abdomen was then opened and the diseased left tube and ovary removed, and suspension of the uterus effected. The woman made a good recovery from the operation, but only temporary benefit, lasting for a few months, resulted. The patient afterwards fell into the hands of another surgeon, who performed hysterectomy from above, from which operation she also recovered, and I have learned that much benefit has resulted.

CASE XXII.—*Retroversion. Cystic Ovary. Lacerated Perineum.*

K., aged 33, married, had borne one child, and had had one miscarriage, had attacks of hystero-epilepsy not associated in any way with the menstrual period. She had suffered for three years with bearing-down pain, dysmenorrhea, and between the periods with much paroxysmal pain on the right side, increased by lifting. The perineum was badly torn, and there were rectocele and cystocele. The uterus was retroverted and below the promontory of the sacrum. The left ovary was in Douglas' cul de sac. An Emmet operation was performed on the perineum, and one week later the abdominal cavity was opened. The left prolapsed ovary being in process of cystic degeneration, was removed and the retroversion corrected by uterine suspension. The right ovary was not removed. Normal recovery ensued. She is now being treated by general massage and other methods for hystero-epilepsy.

CASE XXIII.—*Hematoma of Ovary.*

R., aged 49, married, with four children, suffered greatly from bearing-down and pain in the rectum. For two years the menses had been frequent and irregular, the flow being at times almost constant. She had a lacerated perineum and cervix, and a tubo-ovarian mass to the left of the uterus the size of a fist. Currettings were examined microscopically for malignant disease of the uterus and showed none. The abdominal cavity was opened; the right tube and ovary were normal; the mass on the left side consisted chiefly of a hematoma of the ovary, the largest sac containing two ounces of chocolate-colored fluid. The diseased tube and ovary were tied off and removed. The uterus was suspended. Recovery followed without complication.

CASE XXIV.—*Retroversion with Descent. Fibroid. Myomectomy. Uterine Suspension.*

S., aged 29, unmarried, was sent by Dr. M. B. Hartzell. For several years she had had in the intervals between periods a feeling in the right lower half of the abdomen as though a raw surface were being chafed. This sensation passed around over the right hip. She was decidedly worse after walking or working. She was comfortable when lying down, but was always up at night from five to six times for urination since girlhood; she was never able to walk more than one or two blocks without urinating. She had had various forms of minor local treatment in the hands of other physicians, without benefit. The movement of the bowels and urination had no effect in increasing the pain. The patient, on examination, was found to have a small uterine polypus, protruding from the os, with very marked retroversion of the uterus and a fibroid nodule in the anterior wall. By repeated attempts it was demonstrated that when the retroversion was overcome by a wool pack the patient was entirely comfortable. When the uterus was again allowed to retrovert the frequent urination returned with the "raw" feeling in the right side. After extended observation it was decided to suspend the uterus by abdominal incision and to remove the fibroid nodule. This

was done, the nodule being shelled out of the uterus and its site closed by suture. The patient made a perfectly normal recovery and has remained entirely well as a result of the treatment. In this case the symptoms were probably due to pressure of the fibroid nodule upon the bladder when in the upright position, as well as to the retroversion.

CASE XXV.—*Double Pyosalpinx. Metritis. Hysterectomy.**

P., aged 26, who had borne three children and had had three miscarriages, presented disabling symptoms from her last miscarriage, three months before, when she had peritonitis. She took morphin freely. She was found to present double pyosalpinx, metritis and many adhesions as a result of old pelvic peritonitis. The uterus was large, tender, and firmly adherent in retroversion. Hysterectomy was done by the suprapubic method, with amputation at the internal os. The patient made an excellent recovery, although almost maniacal for the first three or four days, owing to the sudden withdrawal of the morphin, as it was not known until this time that she had acquired the morphin-habit. No drainage was used.

CASE XXVI.—*Hysterectomy.*

Y., aged 30, married, who had borne seven children, and had no miscarriages, had had the perineum torn and repaired twice. She suffered from much straining in urination, with soreness and pain in the left ovarian region for two years, at times severe. She gave a history of having suffered for three months, from February to May, with gushes of from two to three ounces of brown, watery fluid when stooping, from three to six times a day, preceded by pain, and she was obliged to wear napkins constantly during that time. At the end of this period a sharp hemorrhage occurred during menstruation, and a free discharge of blood continued for five days. She had lost thirty-five pounds in three months, and had been unable to work for five months. The uterus was badly descended and retroverted. It was enlarged to twice its normal diameter. From before

backward the canal measured three and one-half inches. The curet withdrew much hypertrophied gland-tissue. The patient had suffered so much as to be extremely anxious for total removal of all offending organs. Owing to the degeneration of the endometrium and the enlargement of the uterus itself, hysterectomy was performed by the suprapubic route, the broad ligaments being tied off with silk. The patient made a typical recovery, has since been entirely well, is one of the most grateful patients it has ever been my fortune to operate upon, and feels that she cannot do enough for the institution which so greatly relieved her suffering.

CASE XXVII.—*Lacerated Perineum. Retroversion with Descent. Neurasthenia.*

P., aged 53, sent by Dr. Henry W. Elmer, of Bridgeton, N. J., had borne three children, and had passed the menopause two years before. For nine years she had been neurasthenic, and was often confined to bed for periods of from two to three months without definite disease. She had morbid ideas as to difficulty in defecation, and great exhaustion followed the effort, which frequently consumed two hours. There was no constipation. The woman complained of bearing-down pain in the left ovarian region and inability to walk, which she attributed to the pelvic condition. There was no endometritis, but great relaxation of supports of the uterus and the bladder. The bladder was imperfectly emptied. The uterus was in the first stage of prolapse; retroversion was complete. Owing to the great relaxation of the tissues, the repair of the perineum was considered insufficient to effect a cure, and the uterus was therefore suspended, in addition to the repair of the pelvic floor. Aseptic recovery ensued, after which massage and electricity were employed to restore the general tone. The patient was discharged well, and to her great delight, she was able to walk considerable distances without distress, more than for many years.

CASE XXVIII.—*Adeno-Carcinoma of the Uterus. Hysterectomy.†*

* This case was reported in *The Therapeutic Gazette*, October, 1896.

† This case was reported in the *American Journal of Obstetrics* for April, 1897.

H., aged 63, was sent by Dr. J. R. Bryan. She had borne three children. The menopause had never appeared. Since the time it was due there had been several free bleedings every year; during the preceding six months there had been daily hemorrhage, at times severe. The case was originally one of benign adenoma, which had undergone carcinomatous change. The patient was anemic, and subject to morbid mental states, hypochondriac; she had a habit of wandering from home. There was no pain, and no unusual odor. A diagnosis of malignant disease of the body of the uterus being made, three days later hysterectomy was performed. Excellent recovery ensued. A microscopic diagnosis of adeno-carcinoma was made by Dr. H. W. Cattell.

CASE XXIX.—*Malignant Adenoma of the Uterus.*

X., aged 39, was sent by Dr. W. R. Hoch. She had borne one child, thirteen years old, and had had no miscarriage. The periods recurred every three or four weeks, for five days, the quantity being normal. The woman complained of bearing down on both sides; her chief symptom was pain in the back, occasionally sharp, and shooting to both knees in front. There was also constant dull pain. The vaginal discharge was white, constant; never bloody or offensive. There was a laceration of the perineum. The uterus was not enlarged. It was pushed forward, though freely movable, and no infiltration was demonstrable by touch. The os was slightly excavated. Around it was an area of dark, angry red, glandular degeneration 2 cm. in diameter. The utero-sacral ligaments were tense and tender. A shield-shaped patch, $1\frac{1}{2}$ cm. in diameter, occupied the posterior wall of the vagina, at the point where the cervix normally lies in contact with it. This resembled a superficial glandular degeneration or erosion and had nothing characteristic of malignant disease in appearance or to the touch. Although the case was only slightly suspicious, a piece was excised for microscopic examination and submitted to Dr. Henry W. Cattell, who diagnosticated decidedly malignant adenoma in an early stage. Vaginal

hysterectomy was at once performed, and the diseased patch excised from the vagina. Uncomplicated recovery ensued. On examination by the microscope the tissue from the vaginal wall showed the same malignant change as that in the uterus. The case is a very unusual one, because of the apparent transfer of the disease by contact and not by direct extension. No enlargement of the lymphatic glands could be demonstrated.

CASE XXX.—*Appendicitis.*

S., aged 23, unmarried, had during the preceding three years had several attacks of right-sided pelvic inflammation referred to the region of the appendix. She had been obliged to leave her employment several times on account of these attacks. There was tenderness over the appendix, and there was pain in walking or lifting. The abdomen was opened, and a somewhat adherent and thickened appendix, which had been the seat of inflammatory disease, was removed, and the stump invaginated in the cecum. Several small cysts in the ovaries containing clear fluid were punctured. The tubes were normal. The ovaries and the tubes were not removed. Aseptic recovery ensued, and was followed by massage and electricity to improve the nervous symptoms. The patient was discharged well.

CASE XXXI.—*Uterine Dermoid. Hysterectomy.**

B., aged 58, had borne two children, and had passed the menopause fourteen years before. For a year, at intervals, there had been free bleeding from the uterus, lasting several days at a time. A constant, very copious, grayish or pinkish discharge, having an odor of decomposition, escaped from the uterus. This had formerly been like the washings of beef. There was constant, burning pain through the abdomen and back. The woman had been losing flesh for a year. There was frequent micturition, with pain. There had been a chill, followed by fever, two weeks before. The uterus was enlarged symmetrically; its length was four inches;

*This case was reported as a uterine dermoid in the *American Journal of Obstetrics*, Vol. XXXIII, No. 6.

its fundus was adherent, low and backward. The uterine cavity was found to contain much soft, white cheesy, sarcomatous-looking material. Malignant disease being suspected, total hysterectomy was done from above by the ligation method. Neither pulse nor temperature exceeded 100 after the operation. Recovery was aseptic. The contents of the uterus were highly offensive. Microscopically, the masses consisted largely of fat crystals. A hard nodule was situated in the posterior wall of the uterus, below the origin of the left tube. Gauze and glass drainage.

CASE XXXII.—*Epithelioma of the Cervix. Hysterectomy.**

H., aged 54, had borne seven children, had had three miscarriages, and had passed the menopause two and a half years before. The patient complained of burning pain, and a slight, irritating, bloody vaginal discharge, without odor, for three months. There was slight cachexia, but very little loss of weight. Examination disclosed a small, freely movable uterus, rather low, the body apparently normal, the cervix hardened, not enlarged or thickened, the os somewhat excavated; three hard, wart-like projections, one-sixteenth inch in diameter, were situated to the right, at the edge. The lower lip of the cervix was infiltrated over an area one-quarter by one-half inch. A diagnosis of early epithelioma was made. The vagina was not involved, and there was no glanular infiltration. Hysterectomy was performed. The highest pulse during convalescence was 96, the highest temperature 100.4°. Microscopic examination confirmed the diagnosis of epithelioma.

CASE XXXIII.

Y., aged 42, had a ventral hernia, following through-and-through closure of an incision four years before, at my hands. The hernia first appeared during excessive vomiting from sea-sickness. The sac and the scar were dissected out; the peritoneum, the muscles and the aponeurosis were separately sutured by kangaroo tendon; the skin was united by intracutaneous suture. Aseptic recovery followed.

CASE XXXIV.—*Painful Bleeding Fibroids. Hysterectomy.†*

H., 48, married, had borne one child. She had bled recently five months without cessation. She complained of severe pain originating near the neck of the bladder, and causing nausea and sweating. She was addicted to the use of morphin, and had mental peculiarities. Hysterectomy was performed by the combined abdominal and vaginal routes. Good recovery followed.

CASE XXXV.

E., aged 38, married, had suffered from menorrhagia and dysmenorrhea for four years. She had bearing-down and pelvic distress, with severe laceration of cervix and perineum, and retroversion, with descent of the uterus. There was suspicious degeneration of the glands about the os uteri, but tissue excised and examined microscopically, was reported to be benign. The following operations were performed at one sitting: The cervix was repaired with catgut, the suspicious tissue was excised, the perineum was repaired by an Emmet operation, the abdomen was opened, and the uterus suspended. The body of the uterus was larger than normal, and showed yellowish-white mottling, but no distinct evidences of malignant disease. Aseptic recovery followed.

XXXVI.—*Broad Ligament Oysts and Ruptured Tubal Pregnancy.*

V., aged 30, married, had three children, the latest twenty-two months previously. There was no history of miscarriages, but one of post-puerperal peritonitis after the first labor. The patient had never been well since marriage. Menstruation recurred as usual every three weeks, until the preceding six weeks, during which there had been a constant flow. The patient complained of pain in the left breast, and also in the abdomen, on the right side, increased by work, walking or jolting. There was no definite history of collapse following rupture of tubal pregnancy, but there was considerable suffering much of the time from pain in the abdomen. The real condition had been masked. On examination, the left ovary and tube

* See *Therapeutic Gazette*, Oct., 1896.

† *Therapeutic Gazette*, Oct., 1896.

were found doubled in size, and tender. The right ovary was part of a mass the size of a child's head, that filled the right side of the pelvis, and extended behind the uterus, beyond the median line. The mass was very tender and tense, and appeared to contain fluid. The uterus was limited in movement, and was forward against the pubic bone.

The left tube and ovary were found to be densely adherent; the ovary contained four small cysts the size of walnuts. The right ovary was buried in a large mass that filled most of the pelvis. This mass consisted of a sac, whose walls were made up of adhesions and inflammatory tissue, and whose contents were dark blood-clots and degenerated material resembling placental tissue. Owing to the extensive destruction of both tubes and ovaries, the large amount of raw surface left after enucleation of the diseased organs from adhesions, and the fact that satisfactory stumps could not be made on the uterine side, the entire uterus was removed, with the diseased tissues, by the ligation method, a cervical stump being allowed to remain. The abdomen was closed without drainage, and the patient made a somewhat slow but afebrile recovery, the highest temperature being 100.2° , the absorption rise twenty-four hours after operation. When very extensive destruction of the pelvic organs is present in these cases, I believe that hysterectomy, in addition to removal of the degenerated organs, adds to the chances of the patient's making a permanent recovery that will be satisfactory in all respects.

CASE XXXVII.—*Double Gonorrheal Salpingitis. Oophoritis. Metritis. Fibro-cyst of Uterus. Hysterectomy.*

S., 27 years old, married, sterile, was very highly neurotic on admission to the hospital, exhibiting hysterical aphonia and tremor of the eye-lids. She frequently fell at home, or on the street, in what were probably hysterical attacks of faintness without convulsions. She had several attacks of pelvic peritonitis. She attributed her nervous condition to family trouble and to suffering. The statement is made by some neurologists that severe nervous disorder

is not frequently met with in connection with grave pelvic disease. The present case is a marked example of the association of the two conditions.

On opening the abdomen the omentum was found firmly adherent to the brim of the pelvis in front and required ligation. Well-organized, firm intestinal adhesions bound the small intestine firmly over the uterus, tubes and ovaries. After a tedious separation on the right side a firm, tense cyst the size of a large orange was found behind the uterus, extending toward the right side, and springing from the posterior wall of the uterus. It contained clear, thin fluid, and was unilocular. The right ovary was densely adherent, low down and far out; it contained a cyst the size of a walnut, with thick walls, the inner lining of which was covered with round, calcareous projections. The contents were yellowish-white in color, without odor, and resembled pus. The tube and ovary of the left side were disorganized by inflammation. Owing to the dense adhesions and organized inflammatory tissue, silk ligatures were placed outside both ovaries and tubes, and the broad ligaments ligated down to the uterine arteries on both sides; both tubes were removed, and the uterus was amputated at the internal os. The cervix was closed from within the abdomen by sutures, the peritoneum stitched over raw surfaces as far as possible, and the abdomen closed over an iodoform-gauze pack in the pelvis. This was removed in forty-eight hours, a glass tube inserted, and removed forty-eight hours later. The wound remained aseptic, and the patient made a good recovery, except for separation of the united superficial portion of the wound while straining at stool two weeks after the operation. This was treated with adhesive strips, and the patient was discharged on the forty-second day. Seven months later she re-applied for treatment. The general nutrition had greatly improved; she had no more "falling spells," but suffered from flashes of heat. The menses had not appeared. She was, however, complaining greatly of symptoms of cystitis, with pain in the region of the left kidney. The feet and

legs were edematous. The urine contained pus, and at times blood, but no casts. A milk-diet was prescribed, and the bladder was irrigated with a boric-acid solution, with the result of practically curing the bladder-condition. There was no stone present. The general health of the patient is now wonderfully better than before her operation, and she is able to earn her living.

CASE XXXVIII.—*Fibroid Uterus and Lacerated Perineum with Descent.*

S., aged 49, a patient of Dr. Gutshall, of Perry county, with nine children and two miscarriages, had suffered from constant bearing down for six years. Though 49 years of age she menstruated every two weeks. The duration of the period was from seven to fourteen days, the quantity was excessive, and there had been pain in the right side of the abdomen for twelve years, increasing lately. There were also swelling of hands and feet, dizziness, etc., probably due to anemia. The uterine canal measured four inches, and there was symmetric enlargement of the uterus to about three times its normal dimensions. An offensive muco-purulent uterine discharge has been present for one year. The woman had lost 25 pounds in the preceding year. The history and appearance of the uterus strongly suggested malignant disease, and vaginal hysterectomy was performed by the ligation method, much difficulty being experienced on account of the large size of the uterus.

The patient made an uncomplicated recovery.

CASE XXXIX.—*Double Salpingo-Oophoritis and Endometritis.*

F., 21 years old, married five years, without children, had had a miscarriage two years before. She had been well until that time, but, since, the periods return every two or three weeks, lasting from three to seven days. The quantity was excessive, and there was great pain. Between the periods there was cramp-like pain on both sides, chiefly on the left, caused by walking or by cold. There was a yellowish bloody discharge, offensive at times, which often followed an attack of expulsive pain. She had been

in bed one year before for three months, with a pelvic inflammatory attack. There was found double disease of the adnexa, which were firmly fixed by adhesions.

At the operation the uterus was curetted and tincture of iodine was applied to the canal; the abdomen was opened, both tubes and ovaries being found buried in exudate and adherent to the surrounding bowel and to the bladder. The right tube was hopelessly disorganized, containing pus, and, with its ovary, was removed. The left tube was club-shaped and contained fluid; the fimbriæ had been rolled in, but the process of destruction and sac-formation was apparently not yet complete, as a dimple appeared at the site of the abdominal ostium of the tube. It was hoped that the contents of the tube might prove to be non-infective, and that the tube might be saved, but on introducing a pair of forceps at the site of the depression mentioned and separating their blades, an abundance of pus escaped. The tube was therefore removed, with its corresponding ovary, which contained several small cysts. The appendix appeared normal and was not removed. The abdomen was closed without drainage, and the patient recovered nicely and was discharged well. She was entirely well for four months, but became thoroughly drenched with rain while at a picnic. Since that time, while entirely free from pelvic distress, she has occasionally suffered from sharp cramp-like pains in the region of the splenic flexure of the colon, which are in my judgment due to intestinal colic. She has gained in weight, is well developed and strong, a large healthy-looking woman, but somewhat hysterical and inclined to lead a sedentary life on account of these pains. It being impossible to secure proper moral treatment at her home she was admitted to the hospital eleven months after her operation, for massage and high enemas, under which treatment she immediately improved and walked daily from four to five miles with entire comfort. She has absolutely no pelvic lesion.

This case illustrates the importance of general management of pelvic disease after operation. If no pelvic disease exists the

patient must be required to resume her ordinary life, and moral methods must be used to disabuse the mind of the continuance of disease.

CASE XL.—*Cyst of the Broad Ligament. Old Appendicitis.*

W., 25 years old, of Virginia, unmarried, presented a cyst on the right side, three inches in diameter, which distended the mesosalpinx, but was in the broad ligament proper. It was removed unruptured, with the corresponding tube, which passed over its upper surface. The appendix was thickened, somewhat adherent and had been inflamed. It was removed and the stump invaginated into the cecum. No drainage was provided, and aseptic recovery followed.

CASE XLI.—*Relapsing Appendicitis. Salpingitis.*

D., aged 33, unmarried, a patient of Dr. C. H. Willits, was a very highly hysterical and neurotic chronic invalid, who had had several attacks of pelvic peritonitis originating in the right side. When admitted she had been in bed nearly all the time for six months. The general condition was poor. Owing to the existence of pelvic masses on both sides, a median incision was made, and the omentum freed from the right side of the pelvis and the uterus. The tubes and ovaries were found buried by small intestine and bladder, which were bound down by adhesions almost cartilaginous in density. The layers of exudation were thoroughly organized and frequently half an inch in thickness. The bladder was attached to the whole of the anterior wall of the uterus and on top of the fundus, and was separated with great difficulty, but without rupture. Between the bladder-wall and the uterus two cysts were found, each containing two or three drams of clear fluid. After a tedious dissection, the appendix was found dipping down into the true pelvis, and it was removed. The organ was very hard and firm, its walls thick and friable. It had never been perforated. The right tube was with great difficulty delivered and found to have been, with the appendix, the focus of an attack of inflammation. The other organs appeared

sound and were not removed. The abdomen was closed without drainage, and although after the operation the patient was quite weak, an excellent aseptic recovery followed, the highest temperature recorded being 99°.

Seen nine months later, the patient is found to have gained very greatly in weight, health, spirits and comfort. She has regained her normal weight, has resumed the ordinary habits of life, and her nervous condition has greatly improved. There has, however, been one attack of mild inflammation in the side not operated on.

During the period covered by the abdominal operations here reported a large number of minor operations were also performed. In a number of the abdominal cases other operations were performed at the same time. For example, the vermiform appendix was removed when diseased, and at times the lacerated cervix or perineum repaired, curettement done for endometritis, or hemorrhoids treated by ligation. In doing multiple operations at the same sitting the condition of the patient is carefully considered. Many operations, minor in themselves, may be done rapidly in succession with little shock, and if the condition of the patient continues good much gain is made, providing the entire time consumed by the procedures is not sufficiently great to in any way imperil recovery. It need scarcely be said that, when grave operations are undertaken, such as hysterectomy complicated by pelvic abscess, or for large fibroids, all minor operations are deferred until some more suitable time. The ability to combine several procedures, such as ligation of hemorrhoids, repair of perineum and removal of a troublesome appendix or tube, will depend upon the skill and rapidity of work of each individual operator, and upon the skill of his assistants.

During the period covered by this report the vermiform appendix was removed eight times, but in only one case was this the only operation performed upon the patient. Hysterectomy was done twelve times, by various methods. In one case the uterus and the vermiform appendix were removed at the same operation. In

removing the vermiform appendix the median incision was invariably used. With the patient already in the Trendelenburg position for the pelvic operation, the necessary pressing back of the intestines from the true pelvis almost always either brings the appendix into view or renders its discovery quite easy. When firmly bound down its removal by the median incision is more difficult than through the lateral incision; but this difficulty is not sufficiently great to warrant making another opening.

Myomectomy for uterine fibroid was done once. Diseased ovaries or tubes were removed twelve times. The uterus was suspended seventeen times, but in only one case was this the only operation done upon the patient. Suspension of the uterus was usually combined with repair of lacerated perineum and cervix, with curettement for endometritis, and in several cases with the removal of one diseased tube or ovary. When both tubes and ovaries are removed the tension on the broad ligaments is usually sufficiently great to hold up the uterus without suspending it by stitches. Amputation of the cervix was done once. Curettement was done fifteen times. Lacerations of cervix and perineum were repaired fifteen times. Two uterine polypi were removed. In one of these cases, a patient of Dr. W. C. Dixon, the woman, who was unmarried and 28 years old, had bled excessively for one year at her periods, and had suffered much pain. The periods had recurred every two or three weeks, and lasted from eight to twelve days. The polypus was more than one inch in diameter; having been squeezed out of the uterine cavity, it hung free in the vagina by a narrow pedicle. It was extremely hard, and was composed of fibrous tissue.

Two inoperable cases of carcinoma of the cervix were cauterized for temporary relief. Nephrotomy was done once. Four cysts were removed from the abdominal cavity. Hemorrhoids were ligated four times. Fissure occurred once, and in two cases suppurating vulvo-vaginal glands were dissected out. In five cases a reef was taken in the anterior

wall of the vagina in addition to the perineal operation. Extra-uterine pregnancy occurred but once in the series of forty-one cases. Abdominal drainage by gauze or tube was employed four times, or in about ten per cent. of the cases. A large number of cases were refused operation because the lesions were not considered sufficiently great to warrant it. These cases included minor salpingitis, prolapse of the ovary, and mild forms of relapsing pelvic peritonitis. One case only was refused operation on account of its severity. In this case, which was sent from Malaga, New Jersey, by Dr. D. H. Oliver, a woman aged 24 years presented general edema of the lower limbs and abdomen, with multiple sarcomata widely disseminated over the body. Some of the tumors on the chest were 4x2 inches in size; one nodule on the neck was posterior to the sternocleido-mastoid. The abdomen was distended by several irregular intra-pelvic tumors, while one of the growths pressed downward the posterior wall of the vagina, and was nearly the size of a child's head. One of the nodules was removed for microscopic examination, with the result previously stated. Operation was, of course, out of the question, on account of the wide diffusion of the growths, and after consideration of the prospects of the use of injections of serum, all treatment was declined. In one case of carcinoma of the uterus and ovaries with marked ascites, operation was abandoned on account of the dissemination of the growth to other regions of the abdomen. This was the only exploratory operation in the group.

In two cases the uterine cavity was carefully scraped with a dull wire loop, in septic conditions following abortion. It is my custom, when seeing such cases early, to use the finger for cleaning out the uterus prior to irrigation, if the placenta has not yet been expelled. When the case is not seen until the uterus is emptied and is well contracted, it is not considered wise to subject the uterus to sufficient dilatation to admit the introduction of the finger as far as the fundus, and therefore, under moderate use of the branched dilator, the dull wire loop is used, or the small placen-

tal or curet forceps of Emmet. This procedure makes it certain that no small septic masses have been retained; but care must be taken not to scrape so vigorously as to open new channels for absorption.

In one case a patient sent in with a supposed bleeding abdominal tumor was found to have an unsuspected six months pregnancy, with a dead fetus. A woman friend, formerly a physician, had been allowed to make an examination some weeks before, and had used a sound. The patient was extremely weak from loss of blood, but fortunately was not septic. There was complete uterine inertia. The liquor amnii had escaped. After days of gradual dilatation and stimulation by the iodoform-gauze pack introduced through the os, followed by a tight vaginal tampon, which arrested the hemorrhage, I was able safely to extract the fetus by morcellation, under

ether. Not a sign of a uterine pain appeared at any time. The patient made an excellent recovery without fever, but two weeks later developed some swelling of the left lower extremity, due no doubt to mild phlebitis.

All of the minor operative cases recovered except one. A criminal abortion case, profoundly ill from septicæmia when admitted, was gently curetted with the dull wire loop; but was unimproved by any treatment, dying three days later.¹

In reporting this series of peritoneal cases, the histories are taken from the hospital records. In the forty-one cases one death occurred. This statement is made without a reservation, and no deaths (from pneumonia, nephritis or other cause) are excluded for the sake of statistics.

¹ See *Amer. Jour. Obstetrics*, May, 1897.

